

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference NTK05-1657WO	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/JP2005/002211	International filing date (day/month/year) 15.02.2005	Priority date (day/month/year) 23.02.2004	
International Patent Classification (IPC) or national classification and IPC C07D305/06 (2006.01)			
Applicant NIPPON STEEL CHEMICAL CO., LTD.			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>2</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>
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<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following _____, which is the language of a translation furnished for the purposes of:

international search (Rule 12.3 and 23.1(b))
 publication of the international application (Rule 12.4)
 international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished
 the description:
 pages 1-12 _____ as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____

the claims:
 nos. 2, 3 _____ as originally filed/furnished
 nos.* _____ as amended (together with any statement) under Article 19
 nos.* 1 _____ received by this Authority on 17.01.2006
 nos.* _____ received by this Authority on _____

the drawings:
 sheets _____ as originally filed/furnished
 sheets* _____ received by this Authority on _____
 sheets* _____ received by this Authority on _____

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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1. Statement

Novelty (N)	Claims	1–3	YES
	Claims		NO
Inventive step (IS)	Claims	1–3	YES
	Claims		NO
Industrial applicability (IA)	Claims	1–3	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Document 1: JP 11-106380 A (Ube Industries, Ltd.), 20

April 1999

Document 2: JP 11-335314 A (Mitsui Chemicals Co., Ltd.),
7 December 1999

Document 3: JP 10-204002 A (Dainippon Ink & Chemicals,
Incorporated), 4 August 1998

Document 4: JP 06-329569 A (New Japan Chemical Co.,
Ltd.), 29 November 1994

Claims 1 to 3

Document 1 sets forth an aromatic oxetane compound having an aromatic residual group represented by general formula (5) in the description of this application.

Documents 2 to 4 indicate that a substituted aromatic compound is subjected to nuclear hydrogenation in the presence of a hydrogenation catalyst in order to obtain a substituted alicyclic compound (see in particular document 2, claim 2 and embodiments; document 3, claim 1 and embodiments; and document 4, claim 1 and embodiments).

However, the feature wherein an aromatic oxetane compound having an aromatic residual represented by general formula (4) or (5) is subjected to nuclear

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Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

hydrogenation, thereby producing a corresponding alicyclic oxetane compound, is neither disclosed nor suggested in documents 1 to 4 which are related to said invention.

That being the case, the invention set forth in claims 1 to 3 is novel and involves an inventive step in relation to documents 1 to 4.

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Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

In a letter received by this International Preliminary Examining Authority on 17 January 2006, the applicant has amended the claims in page by page, but is normally preferable that amendments to claims be carried out claim by claim.